

USSR

UDC: 632.95

ROZHKOVA, N.G., BASKAKOV, YU.A., ZHEGULOVA, I.A.

"Method of Preparing O-Acylated N-Substituted Hydroxylamines"

USSR Author's Certificate No 222398, filed 29 Dec 66, published 16 Jan 69
(from RZh-Khimiya, No 5 (II), 10 Mar 70, Abstract No 5 N863 P)

Translation: Biologically active compounds with the general formula

are prepared by the reaction of alkyl- or arylisocyanates with N-carbothioalkyl-N-alkyl- or N-carbothioalkyl-N-aryldihydroxylamines in an organic solvent at 50-60°. Example. 0.0141 mole of freshly distilled MeNCO in absolute dichloroethane (II) is slowly added dropwise to 0.0122 mole 3-ClC₆H₄N(OH)COSPr-iso in 50 ml at -5°, the mixture is agitated for 3 hrs at about 20°, and for 5 hrs at 40-50°, the solvent is distilled off, yielding I (R = ClC₆H₄, R' = iso-Pr, and R'' = Me), yield 75%, melting point 61° (benzene-petroleum ether). I modifications are similarly obtained (R, R', R'', % yield, and melting point in °C are indicated):

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RN(COSR')OCONHR'' (1) (R=Me, ClC₆H₄, Cl₂C₆H₃
R'=Pr, iso-Pr, R''=Me, ClC₅H₄C₆H₄, Cl₂C₆H₃, NO₂C₆H₄)

USSR

ROZHKOVA, N.G., et al, RZh-Khimiya, No 5(II), 10 Mar 70, Abstract No 5 N863 P)

Me, iso-Pr, 4-ClC₆H₄, 875, 109-10; Me, iso-Pr, Ph, 85, 0, 118-120; Me, iso-Pr, 2-ClC₆H₄, 93, 5, 66; Me, iso-Pr, 4-NO₂C₆H₄, 55, 128-9; Me, iso-Pr, Me, 43, 5, 78-80; 3-ClC₆H₄, iso-Pr, Ph, 96, 6, 90-1; 3-ClC₆H₄, Pr, 2-ClC₆H₄, 49, 5, 103; 3-ClC₆H₄, Pr, 3,4-Cl₂C₆H₃, 97, 5, 92-3; 3-ClC₆H₄, Pr, Me, 88, 2, 75; 3-ClC₆H₄, iso-Pr, Ph, 66, 63-5; 3-ClC₆H₄, iso-Pr, 2-ClC₆H₄, 65, 112; 3,4-Cl₂C₆H₃, iso-Pr, Ph, 81, 5, 122-3; 3,4-Cl₂C₆H₃, iso-Pr, 4-ClC₆H₄, 96, 5, 86-8, 3,4-Cl₂C₆H₃, iso-Pr, 2-ClC₆H₄, 69, 5, 98.

V. M. Shcheglova

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USSR

UDC 632.95

YUSUPOV, M. M., KOZAK, R. A., and ROZHKOVA, N. K.

"Synthesis of N-Ethyl-S-alkylthiobenzothiazolium Borofluorides"

Sintez Borftoridov N-Etil-S-alkiltiobenzotiazoliya [English Version Above], Tashkent, 1971, 4 pages, (Translated from Referativnyy Zhurnal, Khimiya, No 9, 1972, Abstract No 8 N574 Dep. by the Author's).

Translation: N-Ethyl-S-alkylthiobenzothiazolium borofluorides were manufactured by the interaction of the corresponding S-alkylthiobenzothiazoles with triethyloxonium borofluoride as part of the continuing search for new defoliants and studies of the dependence of defoliant activity on structure.

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USSR

UIC 547.26.118

YUSUPOV, M. M., and BOZHKOVA, N. K., Order of the Labor Red Banner Institute of the Chemistry of Natural Products

"Synthesis of Some Dialkyl-N-(2-benzthiazolyl)-amidophosphates"

Tashkent, Uzbekskiy Khimicheskiy Zhurnal, No 4, 1973, pp 63-64

Abstract: To a solution of 1.5 g of aminobenzthiazole in 10 ml of dry acetone, 1.66 g of freshly distilled diisopropyl phosphite and 2 ml of CCl_4 were added. After addition of 1.5 ml of triethylamine and stirring for 2 hrs at room temperature followed by 1 hr at 50° and after an overnight storage, the precipitated acid chloride was removed, the solvent evaporated and the residual oil washed with HCl to yield the dialkyl-N-(2-benzthiazolyl)-amidophosphates. The agents did not exhibit adequate defoliative activity.

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UDC 632.96

UMAROV, A. A., ROZHKOVA, N. K., IMAMALIYEVA, A. I., ZAKIROV, T. S., LOY, N. P., MIRAKHDAROV, KH., Institute of Chemistry of Plant Substances, Academy of Sciences of the Uzbek SSR

"A Defoliant"

USSR Author's Certificate No 325967, filed 23 Sep 70, published 25 Feb 72 (from RZh-Khimiya, No 22, Nov 72, Abstract No 22N479 P)

Translation: A defoliant is proposed which contains $Mg(CO_3)_2$. The herbicide is distinguished by the fact that the severity of its effect is reduced by using 2-butylthiobenzthiazole (butylcaptax). The $Mg(CO_3)_2$ and butylcaptax are taken in a ratio of 1:1 or 2:1. The proposed mixture is tested for defoliating the thin-fiber grade of cotton plant. Application is done in the phase when 4-5 bolls have opened. On the 12-th day, leaf fall-off reached 82.5-93.7%; dry leaf content was 1.8%. T. A. Belyayeva.

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USSR

UDC 51.330.115

ANDRYUNINA, T. K., BORISENKO, N. G., ROZHKOVA, R. L.

"Algorithm for Replanning of Network Graph as to Length"

Vychisl Metody i Programir [Computer Methods and Programming -- Collection of Works], No. 3, Saratov University Press, 1970, pp 78-82 (Translated from Referativnyy Zhurnal Kibernetika, No. 4, April, 1971, Abstract No. 4 V606 by I. Romanovskiy).

Translation: The problem of changing (proportionally decreasing) the times for performance of operations is studied, when certain of the events on a network graph occur no later than the terms fixed by the assignments.

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USSR

UDC 51.330.115

ROZHKOVA, R. L.

"Algorithm for Approximate Solution of One Particular Problem of Distribution of Limited Resources in Network Planning"

Vychisl Metody i. Programir [Computer Methods and Programming -- Collection of Works], No. 3, Saratov University Press, 1970, pp 74-77 (Translated from Referativnyy Zhurnal Kibernetika, No. 4, April, 1971, Abstract No. 4 V607).

No Abstract.

1/1

Acc. Nr:

AP0053433

Abstracting Service:

CHEMICAL ABST.

Ref. Code:

4R0366

110716g Synthesis of acetylenic keto alcohols under Favorskii reaction conditions. Mikhailovskii, D. I.; Rozhkova, V. N.; Favorskaya, T. A. (Rubezhn. Filial Khark'v. Politekn. Inst. im. Lenina, Rubezhnoe, USSR). Zh. Org. Khim. 1970, 6(2), 397-8 (Russ). The reaction of $\text{MeCOC}\equiv\text{CH}$ with acetone in ether soln. contg. anhyd. KOH gave $\text{MeCOC}\equiv\text{CC}(\text{OH})\text{Me}_2$. CPJR

REEL/FRAME
19830458

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USSR

UDC 669.13.131.2

KONTOROVICH, I. Ye. (deceased), ROZHKOVA, Ye. V., GARBER, M. Ye., and TSYPIN, I. I., All-Union Scientific Research, Planning, and Technological Institute of Coal Industry

"On the Optimum Content of Carbon and Chromium in Wear-Resistant White Irons"

Moscow, Metallovedeniye, No 5, 1971, pp 45-46

Abstract: Effects of carbon (1.5-4.0%) and chromium (12.0-30.0%) on the wear resistance and strength of white irons are investigated and the results discussed. The wear resistance and strength of white irons are more affected by carbon than by chromium. White irons with a carbon content somewhat higher than the eutectic show the highest wear resistance, but their use is limited due to insufficient strength properties. These irons can be recommended for working under wear conditions without notable impact loadings. For parts of machines operating under conditions where a strength of $\sim 90 \text{ kg/mm}^2$ is required, white irons with a carbon content of no more than 2.8% and 12-18% Cr should be used. Three figures, five bibliographic references.

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USSR

UDC 531.383

OZNOBKIN, O. D., ROZHKOVSKIY, V. D., Tula Polytechnical Institute
~~General Engineering Institute~~

"Determination of the Maximum Deviations of a Gyrostabilizer Due
to the Action of Perturbations Limited Modulo"

Leningrad, IVUZ, Priborostroyeniye, No 11, 1970, pp 82-85

Abstract: The method of B. V. Bulgakov is used to determine the
maximum deviations of a uniaxial correctible gyrostabilizer due
to the biaxial action of perturbations that are restricted
exclusively modulo. Calculation relationships for determination
of the maximum deviation of the gyrostabilizer are obtained.
3 bibliographic entries.

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1/2 021 UNCLASSIFIED PROCESSING DATE--09DEC70
TITLE--EQUILIBRIUM REACTIONS OF DIBROMOETHANE -U-
AUTHOR--(05)--LEVANOVA, S.V., ROZHNOV, A.M., SEDOV, S.M., STARKOV, V.YA.,
MANZHOS, V.N.
COUNTRY OF INFO--USSR
SOURCE--IZV. VYSSH. UCHEB. ZAVED., KHIM. KHIM. TEKHNOL. 1970, 13(1), 62-5
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--CHEMICAL REACTION RATE, BROMINATED ORGANIC COMPOUND, ETHANE,
ISOMERIZATION, THERMODYNAMIC FUNCTION, SPECTRUM, HYDROGENATION,
BROMINATION, ENTROPY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1992/1922 STEP NO--UR/0153/70/013/001/0062/0065
CIRC ACCESSION NO--AT0112894

UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--0900170

CIRC ACCESSION NO--AT0112894

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RATE CONST. (K SUBR TIMES 10 PRIME3) FOR THE DEHYDROBROMINATION OF MECHBR SUB2 (I) IS 2.01 AT 413DEGREES, 5.13 AT 157DEGREES, 13.8 AT 176DEGREES, AND 65.0 AT 1210DEGREES. SIMILAR DATA FOR ORCH SUB2 CH SUB2 BR (II) ARE 28.6 AT 131DEGREES, 52.1 AT 140DEGREES, 106.1 AT 156DEGREES, AND 209 AT 174DEGREES. IN STUDIES OF THE ISOMERIZATION OF II TO I, THE PERCENT I IN THE EQUIL. MIXT. (INITIALLY PURE II) IS 1.94 AT 176DEGREES, 2.30 AT 198DEGREES, 2.50 AT 211DEGREES, 2.74 AT 225DEGREES, AND 3.05 AT 245DEGREES. THERMODYNAMIC FUNCTIONS OF II ARE CALCD. FROM BOND LENGTHS AND SPECTRAL DATA AT 25-727DEGREES. VALUES AT 127DEGREES AND 227DEGREES ARE S SUBT, 84.77 AND 90.10 CAL-(DEGREES MOLE), C SUBP, 22.49 AND 25.33 CAL-(DEGREES MOLE), (H SUBT DEGREES H SUBO DEGREES) T, 15.18 AND 16.79 KCAL-MOLE, AND MINUS (Z SUBT DEGREES, H SUBT DEGREES) T, 69.59 AND 73.31 CAL-MOLE. THE REACTION RATE DATA ARE USED TO CALC. THERMODYNAMIC FUNCTIONS FOR THE DEHYDROGENATION AND ISOMERIZATION REACTIONS, AND THE CALCD. ENTROPY CHANGES AGREE WELL WITH LITERATURE DATA.

FACILITY: KUIBYSHEV. POLITEKH. INST. IM. KUIBYSHEVA, KUIBYSHEV, USSR.

UNCLASSIFIED

1/2 . 018 UNCLASSIFIED PROCESSING DATE--18SEP70
TITLE--MEASUREMENT OF THE CONCENTRATION OF OXYGEN DISSOLVED IN TANTALUM
-U-
AUTHOR--(05)-ANUCHKIN, A.M., VOLKOV, A.K., KIDIN, I.N., ROZHNOVA, T.M.,
SHTREMEL, M.A.
COUNTRY OF INFO--USSR
SOURCE--IZV. VYSSH. UCHEB. ZAVED., CHERN. MET. 1970, 13(1), 140-2
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--OXYGEN, TATALUM, SOLUBILITY, SOLID SOLUTION, REFRACTORY METAL
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1986/1008 STEP NO--UR/0148/70/013/001/0140/0142
CIRC ACCESSION NO--AT0102942
UNCLASSIFIED

2/2 018

UNCLASSIFIED

PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AT0102942

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DETN. OF THE CONC. OF INTERSTITIAL SOLID SOLNS. IN REFRACTORY METALS ON THE BASIS OF THE RESIDUAL ELEC. RESISTANCE IS FASTER THAN THAT BASED ON CELL PARAMETERS, AND OFTEN MORE RELIABLE THAN METHODS USING VACUUM FUSION OR VACUUM EXT. TO AVOID ERRORS RESULTING FROM THE GEOMETRY OF THE SPECIMENTS, THE PARAMETER EMPLOYED IS CHI, THE RATIO OF THE RESISTANCES AT 2 TEMPS., CHI IS A NONLINEAR FUNCTION OF THE CONC., BUT THE FUNCTION Z EQUALS $(CHI - 1)$ PRIME NEGATIVE 1 IS A LINEAR FUNCTION OF THE CONC. C IS THE MATTHIESSEN RULE IS OBEYED. THE RELATION Z EQUALS $\alpha + \beta C$ IS EVEN MORE WIDELY VALID WITHIN ADEQUATE LIMITS OF ACCURACY. TA STRIPS CONTG. TRACES OF Nb, Mo, AND Fe WERE ADDNL. PURIFIED BY PULSE HEATINGS (4-7 SEC) IN HIGH VACUUM (BELOW THE M.P.) AND THE RESISTIVITY MEASUREMENTS WERE MADE AT 293DEGREESK AND 77DEGREESK BY A POTENTIOMETRIC METHOD. INITIAL VALUES OF 2.71-3.50 FOR THE RATIO CHI INCREASED TO 4.60-5.33 AFTER PURIFICATION. SAMPLES WERE DEGASSED, AND THEN SATD. WITH O FOR 5-30 MIN AT 1100DEGREESK UNDER PRESSURES OF 2-4 TIMES 10^{-5} PRIME NEGATIVE 3 TORR, AND O WAS THEN REMOVED AT A PRESSURE SMALLER THAN 5 TIMES 10^{-5} PRIME NEGATIVE 5 TORR. CONC. WAS DETD. BY 3 METHODS: GRAVIMETRIC, LATTICE PERIOD, AND RESISTANCE AT 20DEGREESK. THE 3 METHODS GIVE COMPATIBLE RESULTS.

UNCLASSIFIED

1/2 014 UNCLASSIFIED PROCESSING DATE--02JCT70
TITLE--REMOVAL OF OIL FROM WASTE WATERS BY A PRESSURE FREE FLOTATION
METHOD -U-
AUTHOR-(03)-ROZHENYATOVSKIY, I.I., SIMONOV, N.F., STEPANOV, YU.V.
COUNTRY OF INFO--USSR
SOURCE--KOKS KHIM 1970, (2) 35-9
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR
TOPIC TAGS--CHEMICAL SEPARATION, FLOTATION, COKE, PETROLEUM PRODUCT, WATER
PURIFICATION EQUIPMENT, INDUSTRIAL WATER
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REF/FRAME--1991/0112 STEP NO--UR/0068/70/000/002/0035/0039
CIRC ACCESSION NO--AT0110084
UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--020CT70

CIRC ACCESSION NO--AT0110084

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. OILS AND TARS CONTAINED IN EFFLUENTS OF COKE CHEM. PLANTS WERE REMOVED BY THE DISPERSED AIR FLOTATION IN OPEN CHAMBERS UNDER BOTH LAB. AND INDUSTRIAL PILOT PLANT CONDITIONS. IN THE LAB. THE DISPERSION OF AIR WAS GENERATED BY A SUBMERGED IMPELLER OF 45 MM DIAM. REVOLVING AT A PERIPHERAL SPEED OF 6 M-SEC. A 80-96PERCENT REMOVAL WAS ACHIEVED AT AN AIR TO LIQ. VOL. RATIO OF 30-40 AND A 13-18 MIN RETENTION. IN THE PILOT PLANT, FLOTATION FOLLOWS AFTER SEDIMENTATION BUT BEFORE ANY NH SUB3 CONTG. WASTE WATERS ARE ADDED, WHICH HAVE AN INHIBITING EFFECT. A 6 HR SEDIMENTATION RESULTS IN REMOVING ONLY 28PERCENT OF 190 PPM OF THE INITIAL OIL AND TAR CONTENTS. THE FLOTATION IS DONE IN 5 PARALLEL 1.5 TIMES 2.3 M CHAMBERS EACH OF WHICH IS EQUIPPED WITH AN IMPELLER OF 320-50 MM DIAM. PLACED AT 1.4 M BELOW THE WATER LEVEL, FED FROM THE OUTSIDE THROUGH 2 SUCTION PIPES AND DRIVEN BY A VERTICAL SHAFT 10 KW MOTOR AT VARIABLE SPEEDS OF 590, 730, AND 970 RPM. THE FLOTATION CHAMBERS ARE ADJOINED BY THE STEAM HEATED SLUDGE COMPARTMENTS RECEIVING SUPERNATANT MATTER SKIMMED BY A MECH. CONVEYOR. AN AV. 37-56PERCENT REDN. OF OIL AND TAR CONC. TO RESIDUAL 74-58 PPM IS ACHIEVED AT THE OPTIMUM IMPELLER SPEED OF 730 RPM AND FLOW RATE OF 18-20 M PRIME3 HR CHAMBER WITH A CORRESPONDING AIR TO LIQ. RATIO OF 5.5-8.5. THE OPTIMUM RATE OF MECH. SKIMMING IS 1.2 M-MIN.

UNCLASSIFIED

USSR

UDC: 621.396.6-181.5

ROZE, R. F., KOKORISH, Ye. Yu., LAMEKIN, V. F., PROKHOROV, V. K.,
and ROZHUKINS, P. P.

"Integrated Microcircuits for Communications Equipment"

Elektron. tekhnika. Nauchno-tekhn. sb. Mikroelektronika (Electronic
Engineering, Scientific-Technical Collection, Microelectronics)
1970, No. 2(23), pp 5-11 (from RZh-Radiotekhnika, No. 3, March 71,
Abstract No. 3V237)

Translation: The directions and perspectives of developments in
hybrid-film and semiconductor microsystems are evaluated. Author's
abstract

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USSR

UDC: 621.317.757(088.8)

ROZIN, A. G.

"A Frequency Distortion Meter"

USSR Author's Certificate No 27338 [sic], filed 28 Apr 67, published 2 Nov 70 (from RZh-Radiotekhnika, No 6, Jun 71, Abstract No 6A316 P)

Translation: This Author's Certificate introduces a frequency distortion meter with diode-capacitance circuits for storing the maximum and minimum values of the frequency response. As a distinguishing feature of the patent, measurement error is reduced and the conditions for readout of the result are improved by using a stepped logarithmic divider with two inputs, one of which is connected to the storage circuit for the maximum value of the frequency response, while the other is connected to the storage circuit for the minimum value.

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USSR

ROZIN, D. G., Andizhanskaya Oblast Sanitary Epidemiological Station

"The Use of Dipyroxime(TMB-4) in Acute Intoxication With Methylmercaptophos"

Tashkent, Meditsinskiy Zhurnal Uzbekistana, No 7, Jul 71, p 73

Translation: Dipyroxime(TMB-4) is an active cholinesterase reactivator.

We administered TMB-4 to patients suffering from acute intoxication with methylmercaptophos, an organophosphorus insecticide used in cotton-growing to combat sucking insects. The effectiveness of TMB-4 is shown by the following example.

Patient N., 39 years old, a farm worker, was walking along a field which was being treated with methylmercaptophos sprayed from a tractor, and he was covered by one such spray wave of the pesticide. Eight hours later, he felt dryness of the mouth, thirst, acute weakness, vertigo, and headache. Later, vomiting and diarrhea developed.

He was taken to the hospital in 20 hours in serious condition: he was semiconscious, vomiting continuously, and defecating involuntarily. Subsequent pathology consisted of acute dehydration of the body and

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USSR

ROZIN, D. G., Meditsinskiy Zhurnal Uzbekistana, No 7, Jul 71, p 73

deterioration of cardiovascular functions. Despite antidote therapy with atropine and infusion of liquids (plasma, physiological saline, and glucose solution), his life was threatened.

The patient was given 3 ml of TMB-4: 1 ml intravenously and two doses of 1 ml subcutaneously at 1 hour intervals. After that, his condition improved: he became conscious and vomiting and diarrhea subsided. During the rest of the day, he still felt very weak. However, 48 hours later, he was getting up from bed by himself and walking around.

The results achieved testify to the effectiveness of TMB-4 in acute poisoning with methylmercaptophos.

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USSR

ROZIN, D. G. and ROZINA, V. F., Andizhan Oblast Sanitary Epidemiological Station

"Some Cases of Acute Anthio Poisoning"

Tashkent, Meditsinskiy Zhurnal Uzbekistana, No 5, 1971, p 69

Abstract: Nine persons became ill 6 hours after weeding cotton on a field 4 days after it had been sprayed with anthio, an organophosphorus insecticide with systemic and contact action. They complained of severe weakness, vertigo, headache, nausea, and abdominal pains. Upon admission to a hospital, their condition was marked by skin pallor, tachycardia, dullness of the heart sounds, and arterial pressure ranging from 115/70 to 130/50 Hg. Cholinesterase activity was inhibited by 30 to 70%. The blood changes included slight leukocytosis, eosinopenia, and monocytopenia. Coprological examination revealed intestinal dysfunction. All the patients responded to treatment (gastric lavage, atropine injections, symptomatic therapy) and were discharged in satisfactory condition after 9 to 12 days in the hospital.

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ROZIN, K.M.

SPR 5905
6-73

3

III-3. DETERMINATION OF THE CONDITIONS OF INTENSE MIXING OF A MELT BY AN
EXTERNAL MOBILE MAGNETIC FIELD FOR GROWTH OF SEMICONDUCTING SINGLE CRYSTALS
[Article by V. V. Antipov, K. M. Rozin, N. P. Sheshol'skaya, Moscow: Novotekhn.
Ili Symposium on Polymers and Nonlinear Polymers, Moscow: Novotekhn.
Plenum, Moscow, 1972, p. 37]

For purposes of intensification of the growth processes of semiconducting
single crystals which in the molten state are characterized by the metallic type
of electrical conductivity, an external mobile magnetic field of industrial type
frequency can be used which in the general case has translational and rotational
components. The basis for this interaction is the more or less intense
ponderomotive interaction of the magnetic field with the electrically conducting
melt.

The maximum effect is achieved here in the case of the turbulent nature
of mixing of the melt in the hydrodynamic boundary layer.

The theory of the hydrodynamic boundary layer permits establishment of
the region of existence of the turbulent conditions at the crystallization
front for the laminar nature of the basic flow of the melt.

In view of the difficulty of the detailed calculation of the ponderomotive
interaction of the magnetic field with the melt, the theory of approximate
similarity was used which on the basis of studying the behavior of the model
material permits determination of the required parameters of the magnetic field
insuring mixing of any other melt in the given regime.

On the basis of the theoretical relations obtained and the experimental
research on models of materials, the optimal values of the intensity of the
external mobile magnetic field were calculated for various semiconducting
materials.

A comparison of the results obtained with the known published data indicates
their satisfactory correspondence.

SPK5 59008
6-73

ROZIN, K.M.

III-15. RATE CHARACTERISTICS AND THEIR APPLICATION IN CONTROLLING CRYSTAL GROWTH PROCESSES

[Article by K. M. Rozin, Moscow; Novosibirsk, III Symposium on Progresses in the
A. S. S. S. R. Poluprovodnikov Khim. Kriyallor 1 Plenok, Russian, 12-17 June, 1972, p 41]

The development of new methods of growing single crystals, including the
methods of growth from solutions-salts where crystallization takes place in a
more or less broad temperature range makes a highly urgent problem of the
development of the program to control the growth process.

In order to describe the growth process, in particular, to program the
growth process in the temperature range, the rate characteristics were used as
applied to the phase transition of the liquid-crystal.

The expressions of the rate functions were obtained for different types
of interaction of the crystal-salt.

Use of the rate functions permitted a program to be compiled to grow
several semiconductor crystals for the given growth parameters, in particular,
for the fixed crystallization rate.

Comparison of the results obtained with the experimental data demonstrated
for a number of cases their quite close correspondence which makes it possible
to use the rate functions for the description and programming of the indicated
processes.

SECRET

UDC: 550.834

ROZIN, G. I.-M., KUPERMAN, B. M., NIKIFOROV, S. V., All-Union Scientific
Research Institute of Geophysical Prospecting Methods

"A Device for Plotting Seismic Time Sections"

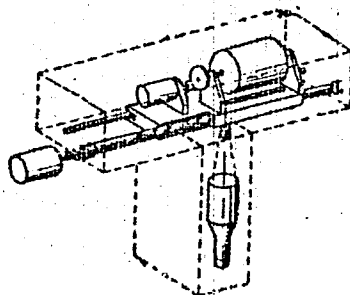
Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki,
No 13, May 72, Author's Certificate No 335644, Division G, filed 17 Dec 70,
published 11 Apr 72, pp 193-194

Translation: This Author's Certificate introduces a device for plotting seismic time sections. The device contains a rotating drum, an electric motor, a speed reducer, a moving carriage with step-by-step motor and a cathode-ray tube. As a distinguishing feature of the patent, the service life of the CRT is extended, reliability is improved, and the overall dimensions of the device are reduced by mounting the rotating drum and the electric motor connected to it through the speed reducer on the moving carriage which is displaced discretely by the step-by-step motor along the turning axle of the drum parallel to the screen of the stationary CRT.

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USSR

ROZIN, G. I.-M. et al., USSR Author's Certificate No 335644



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USSR

UDC 548.55

ROZIN, K. M., KREYNIN, O. L., and SHASKOL'SKAYA, M. P., Moscow Institute of Steel and Alloys

"Calculation of Effective Impurity Distribution Coefficients in Growing Single Crystals From the Melt"

Moscow, Izvestiya Akademii Nauk SSSR, Neorganicheskiye Materialy, Vol 7, No 7, Jul 71, pp 1105-1109

Abstract: From the investigation of KCl-monocrystals with Pb, Zn, and Cu impurities, grown from melt by the Kiropulos method, it was found that the distribution of impurities does not comply with the distribution character determined from a usually used function. This non-conformity is analyzed and it is demonstrated that in the real growing process the part of the liquid phase which practically reacts with the growing crystal has to be considered and that the mentioned non-conformity can be taken into account by experimentally determinable distribution coefficients. An equation characterizing the impurity distribution is presented. Four illustrations, three formulas, thirteen bibliographic references.

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USSR

UDC 576.3:612.017:615.5

OVSYANKO, E. P., ROZIN, M. A., and EFROS, A. M.

"The Effect of Benzimidazole Derivatives on the Heat Resistance of Tradescantia Leaf Cells", pp 50-54, Sentez Belka i Rezistentnost' Kletok, (Protein Synthesis and Cell Resistance), Leningrad, "Nauka," 1971, 104 pp

Abstract: The resistance of Tradescantia leaf cells to the effect of 41°C temperature and the infiltration of solutions of test substances into leaf fragments were determined according to the Aleksandrov method (1955). Under the influence of benzimidazole, 2-methylbenzimidazole, and 2-benzylbenzimidazole (dibazole) in a concentration range of $4.1 \cdot 10^{-7}$ -- $4.1 \cdot 10^{-9}$ M, the heat resistance of cells increased. 1,2,3-Trimethyl-benzimidazole was ineffective. In the presence of chloramphenicol ($3.1 \cdot 10^{-7}$ -- $3.1 \cdot 10^{-9}$ M) or puromycin ($2.1 \cdot 10^{-8}$ -- $2.1 \cdot 10^{-10}$ M), stimulating effect of benzimidazole derivatives on the heat resistance of Tradescantia cells was not observed.

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USSR

UDC 576.3:612.017:615.5

YERMAKOVICH, A. P., and ROZIN, M. A.

"Incorporation of Labeled Leucine in Parasympathetic Nerve Cells of Isolated Frog Auricles", pp 29-32, Sintez Belka i Rezistentnost' Kletok, (Protein Synthesis and Cell Resistance), Leningrad, "Nauka," 1971, 104 pp

Abstract: The intensive incorporation of C^{14} -leucine in parasympathetic nerve cells of isolated frog auricles is shown by the autoradiographic method. Puromycin ($5 \cdot 10^{-5}$ g/ml) completely suppressed the incorporation of amino acid. Within one hour after 5-minute damage of the auricles with distilled water, the incorporation of leucine did not take place in 28% of the cells, positively declined in 5%, and did not change in the remainder. Within two hours after damage, the quantity of cells not incorporating amino acid dropped to 21% and the percentage of cells with reduced incorporation reached 15%. The question of the role of protein synthesis in the restoration of nerve cells after their damage is discussed.

1/1

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USSR

UDC 576.3:612.017:615.5

YERMAKOVICH, A. P., KORYAKINA, YE. D., and ROZIN, M. A.

"The Possible Significance of Protein Synthesis in the Repair Mechanism of Nerve Cells After Damage", pp 14-18, SinteZ Belka i Rezistentnost' Kletok, (Protein Synthesis and Cell Resistance), Leningrad, "Nauka," 1971, 104 pp

Abstract: By means of vital staining with methylene blue (0.01 %), it was shown that the percentage of damaged parasympathetic nerve cells declined with the passage of time after a 5-minute injury of isolated frogs auricles with distilled water. This process was suppressed by inhibitors of protein synthesis puromycin ($5 \cdot 10^{-5}$ g/ml) and chloramphenicol ($2 \cdot 10^{-5}$ g/ml) and was intensified by dibazol ($1 \cdot 10^{-7}$ g/ml). The role of protein synthesis is observed in the repair mechanism of nerve cells after damage.

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- 118 -

USSR

UDC 576.3:612.017:615.5

ROZIN, M. A.,

"Study of the Role of Protein Synthesis in the Mechanism of Action of Pharmacological Substances on Cell Resistance, pp 3-7 Sintezy Belka i Rezistentnost' Kletok, (Protein Synthesis and Cell resistance), Leningrad, "Nauka," 1971, 104 pp

Abstract: It has been established that under the influence of benzimidazole derivatives the resistance of animal cells to damage increases. A number of facts, partially cited in the present collection, provide a basis for demonstrating that intensification of protein synthesis is of substantial importance in the mechanism of increasing cellular resistance under the influence of these compounds. Judging by the materials of the collection, other biologically active substances increasing the nonspecific resistance of the organism are also capable of intensifying protein synthesis animals cells.

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AA0044237

Soviet Inventions Illustrated, Section II Electrical, Derwent, UR 0482

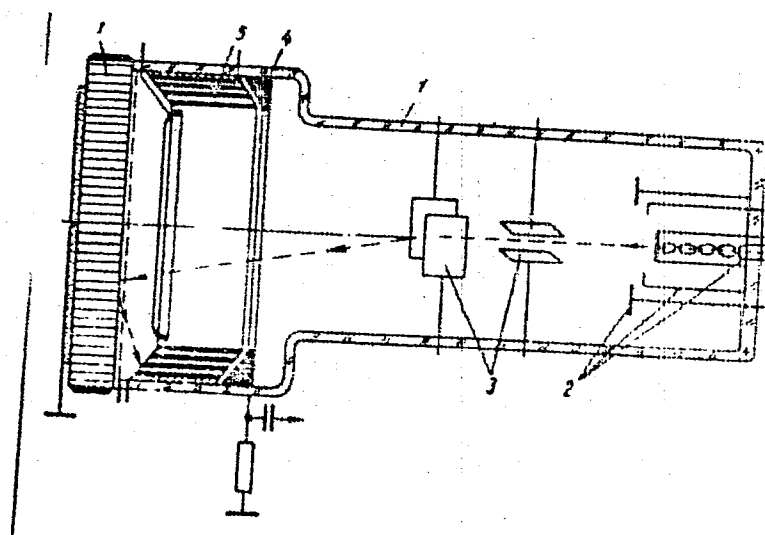
243096 IMAGE CONVERTER TUBE has between a collector and a screen a concentric arrangement of channel multipliers coaxially with the cylindrical surface of the shell. Their ends are cut to a chamfer of 45° with the centre line of the tube where they face the screen disc which has an anisotropic conductivity. The beneficial effect is that the electrons from the electron gun are prevented from describing a straight-through transit across the multiplier.

8.8.67 as 1177867/26-25. L.M. DUN et al. (16.9.69)
Bul 16/5.5.69. Class 21g. Int.Cl. H 01 j.

AUTHORS: Dun, L. M., Oshchepkov, P. K., Karadzhali, R. M.,
Rozin, N. S.

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AA0044237



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19770740

gc

USSR

UDC: 519.2

ROZIN, S. G., ROZINA, K. A., KHOMSKIY, L. Kh.

"On a Method of Modeling an Exponential Distribution Law"

Zh. vychisl. mat. i mat. fiz., 1973, 13, No 2, pp 505-505 (from RZh-Kibernetika, No 7, Jul 73, abstract No 7V157 by the authors)

Translation: The paper investigates a demonstration of modeling of an exponential law of distribution proposed by Butler (RZhMat, 1958, 8273). It is noted that an error occurs in Butler's work. This is taken as a refutation of the recommendation for using this method in modeling an exponential distribution law.

1/1

- 10 -

USSR

UDC 547.785.1.07

ROZIN, YU. A., BLOKHIN, V. YE., PUSEKAREVA, Z. V., and SUKHOVA, M. YE., The Ural Polytechnical Institute imeni S. M. Kirov, Sverdlovsk

"Heterylimidazoles. I. The Synthesis of 2-Heteryl-4,5-Diarylimidazoles"

Riga, Khimiya Geterotsiklicheskikh Soyedineniy, No 5, 1972, pp 631-682

Abstract: It is recognized that the biimidazoles possess photochromic and thermochromic properties. However, as yet no data are available on the photo- and thermochromic properties of heterosubstituted biimidazoles. In order to make such studies possible, fifteen 2-heteryl-4,5-diarylimidazoles -- which have not been previously described -- were synthesized by condensation of benzyl or p-tolyl solutions with heterocyclic aldehydes in acetic acid in the presence of ammonium acetate. The reactions were carried out as follows: to 20 ml of boiling glacial acetic acid containing 5 g of ammonium acetate was added 30 ml of a warm solution of acetic acid containing 0.01 mole of benzyl (or p-tolyl) and 0.01 mole of the appropriate aldehyde in a dropwise manner over a period of 2 hr. The reaction mixture was boiled for an additional 3 hr., following which it was cooled and poured on 250 g of ice with an excess of NH_4OH . The resultant precipitate was removed by filtration, washed with water, dried, and recrystallized. These preparations were then subjected to IR spectroscopic analyses.

1/1

USSR

ROZINA, E. E.

Eksperimental'nyye virusnyye infektsii (sravnitel'naya patomorfologiya)
(Experimental Viral Infections (Comparative Pathomorphology)). Moscow,
Meditsina, 1972, 263 pp, 3,000 copies printed

Annotation

The monograph is devoted to the comparative study of the pathomorphology of the central nervous system in experimental animals with viral infections.

In addition to morphological methods, histochemical, virological and serological methods were also used.

In addition to serious theoretical significance the work presents great interest for practical medicine in connection with the broad program for vaccinating the population against viral infections and in particular neuro-infections (poliomyelitis, tick-borne encephalitis).

The monograph is intended for pathologists, virologists, clinical neuro-pathologists, and specialists in infectious diseases

Introduction

At the present time viral diseases occupy one of the leading places in human pathology and the fight against them is a most important task of medicine.

In connection with the fact that the search for chemical therapeutic preparations and antibiotics for the treatment of the majority of viral

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USSR

ROZINA, E. E., Meditsina, 1972, 263 pp

diseases -- for all the promise that such research offers -- still has not yielded any kind of positive results the methods of vaccination prophylaxis and various methods of serological therapy continue to be the most timely.

In the general complex of methods for studying viruses, morphological methods continue to occupy the basic place both in the study of the pathogenesis and pathomorphology of disease as well as in the selection of strains for vaccine production and in the study of the nature of the vaccination process.

In the development of viral vaccines one of the key questions is the selection of viral strains that must be high in immunogenicity and low in pathogenicity for humans. In this connection it becomes necessary to determine the signs of lowered virulence of a virus; this is at once a most complex problem in the production of vaccine strains. While avirulent mutants are produced through the artificial action of mutagens there are cases known when strains with low virulence are produced by natural means (Jenner vaccine).

The "virulence" of a virus is a collective concept that forms from the many genetic features of a virus that characterize its ability to multiply in the tissues of the host organism and to overcome morphological, physiological and immunological barriers in the organism as the infection process develops. At the same time it must be noted that the virulence of a virus refers not

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USSR

ROZINA, E.E. Meditsina, 1972, 263 pp

only to its genetic properties but also to the very nature of the interaction between the virus and the host organism and to the dynamics of development of the entire chain of cause-and-effect relations between the micro- and macro-organism throughout the entire infection process. In infectious pathology, which assesses the pathogenetic mechanisms of development of disease, this principle is especially important.

From our point of view great interest was afforded by comparative experimental morphological studies of changes in the central nervous system due to both various strains of one and the same virus as well as different viruses in the experimental animals. At the same time the studies were conducted on models of viruses that possess neurotropic properties under natural conditions (poliomyelitis, tick-borne encephalitis) and on viruses that affect elements of the central nervous system under certain conditions (lymphocytic chorio-meningitis, smallpox vaccine).

There are few such comparative morphological studies in the foreign literature and none whatsoever in the Soviet literature. However these studies could show the particular features in the development of the pathological process characteristic of certain neurotropic viruses and could also reveal the reaction of elements of the central nervous system to the action of viruses.

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USSR

ROZINA, E. E., Meditsina, 1972, 263 pp

A key task of the author was to determine the parameters of typical changes for one or another virus in the differential diagnosis of the pathological process caused by it. The author's experiment on monkeys made it possible to discover morphological tests of lowering neurovirulence of individual strains of different viruses and this may be of practical significance in the selection of vaccine strains in the production of antiviral preparations.

In analyzing his own experimental material on the pathology of various viral infections, the author had the opportunity to determine certain patterns in the pathogenesis of these diseases. These patterns relate to the role and significance of "barrier" mechanisms in the dynamics of development of neuro-infections, in the pathomorphology of atypical and effected forms of a disease and in the determination of immunomorphological reactions of elements of the central nervous system to viral infection.

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ROZINA, E. E., Meditsina, 1972, 263 pp

SECTION FOUR. NATURAL SMALLPOX AND SMALLPOX VACCINE

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VIRAL INFECTIONS228

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USSR

UDC: 519.2

ROZIN, S. G., ROZINA, K. A., KHOMSKIY, L. Kh.

"On a Method of Modeling an Exponential Distribution Law"

Zh. vychisl. mat. i mat. fiz., 1973, 13, No 2, pp 505-505 (from RZh-Kibernetika, No 7, Jul 73, abstract No 7V157 by the authors)

Translation: The paper investigates a demonstration of modeling of an exponential law of distribution proposed by Butler (RZhMat, 1958, 8273). It is noted that an error occurs in Butler's work. This is taken as a refutation of the recommendation for using this method in modeling an exponential distribution law.

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- 10 -

USSR

ROZIN, D. G. and ROZINA, V. F., Andizhan Oblast Sanitary Epidemiological Station

"Some Cases of Acute Anthio Poisoning"

Tashkent, Meditsinskiy Zhurnal Uzbekistana, No 5, 1971, p 69

Abstract: Nine persons became ill 6 hours after weeding cotton on a field 4 days after it had been sprayed with anthio, an organophosphorus insecticide with systemic and contact action. They complained of severe weakness, vertigo, headache, nausea, and abdominal pains. Upon admission to a hospital, their condition was marked by skin pallor, tachycardia, dullness of the heart sounds, and arterial pressure ranging from 115/70 to 130/50 Hg. Cholinesterase activity was inhibited by 30 to 70%. The blood changes included slight leukocytosis, eosinopenia, and monocytopenia. Coprological examination revealed intestinal dysfunction. All the patients responded to treatment (gastric lavage, atropine injections, symptomatic therapy) and were discharged in satisfactory condition after 9 to 12 days in the hospital.

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USSR

UDC 621.9.06--529

ROZINOV, A. G., and LEVIN, B. K.

"An Aggregate System of Programed Control"

Moscow, Avtomatizatsiya Operatsiy Proyektirovaniya Protssessov Mashinostroyeniya (Automation of Operations in the Design of the Processes of Machine Building), edited by V. I. Dikushin, "Nauka," 1970, pp 5-10

Abstract: The large number of types of machine tools and the diversity of the functions which they fulfill requires the creation of a large number of programed control systems, which in turn makes it difficult to design and mass produce such systems.

These circumstances make it advisable to create an aggregate system of programed control. The principle of construction of an aggregate system of numerical control consists of the creation of a limited number of standardized devices, or aggregates, such as arithmetic units, units for input from papertape, memory registers, decoders, etc. Specific systems suitable for specific types of machine tools are built up from these devices. The systems can be classified into four basic types, two of which belong to the class of positional and rectangular systems and two of which belong to the class of continuing and general-purpose systems.

1/3

USSR

ROZINOV, A. G., and LEVIN, B. K., Avtomatizatsiya Operatsiy Proyektirovaniya Protsessov Mashinostroyeniya (Automation of Operations in the Design of the Processes of Machine Building), edited by V. I. Dikushin, "Nauka," 1970, pp 5-10

The majority of programed control systems created up to the present time have been made from ferrite-transistor or ferrite-diode elements. However, the use of such elements in modern machine tools with numerical programed control would significantly reduce the capabilities of the machine tools by reducing the frequency with which control pulses could be transmitted. For this reason it is recommended that the basic element of an aggregate control system by the ASVT [Modular System of Computer Equipment], made from high-speed pulse-potential and potential-logical elements.

An analysis of various methods of building circuits from ASVT elements showed that it would be better to use the principle upon which general-purpose computers are based than the principle of a digital model. In digital computers, all arithmetic and logical operations are carried out sequentially by a central arithmetic unit. In a digital model, on the other hand, these operations are carried out in parallel by individual counters, accumulators, and so on.

2/3

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USSR

ROZINOV, A. G., and LEVIN, B. K., Avtomatizatsiya Operatsiy Proyektirovaniya Protssessov Mashinostroyeniya (Automation of Operations in the Design of the Processes of Machine Building), edited by V. I. Dikushin, "Nauka," 1970, pp 5-10

The article includes two block diagrams: 1) the structure of an aggregate system of programed control in three coordinates and 2) the structure of a continuous and general-purpose aggregate system of programed control in two coordinates.

3/3

1/2 016
UNCLASSIFIED
TITLE--CHANGES OF BLOOD SERUM PROTEIN FRACTIONS IN PATIENTS WITH MALIGNANT
NEOPLASMS -U-
AUTHOR--(05)-TSUTSAYEVA, A.A., LOBASENKO, N.P., LYSENKO, A.I., ROZINOV,
L.P., KHARCHENKO, V.F.
COUNTRY OF INFO--USSR
SOURCE--VRACHEBNOYE DELO, 1970, NR 5, PP 99-101
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--NEOPLASM, BLOOD SERUM, BLOOD PROTEIN
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3002/1735
STEP NO--UR/0475/70/000/005/0099/0101
CIRC ACCESSION NO--AP0129103
UNCLASSIFIED

2/2 016

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0129103

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PATIENTS WITH MALIGNANT TUMOURS SHOW A QUANTITATIVE QUALITATIVE CHANGE OF THE BLOOD SERUM PROTEIN CONTENT. INCREASE OF BLOOD SERUM GLOBULINS AND DECREASE OF ALBUMINS, DECREASE OF THE ALBUMIN GLOBULIN COEFFICIENT IN ONCOLOGICAL PATIENTS ARE NONSPECIFIC OF THE TUMOR GROWTH. BUT AT THE SAME TIME THE BLOOD SERUM OF ONCOLOGICAL PATIENTS SHOWS AN ATYPICAL PROTEIN NOT CONNECTED WITH C REACTIVE PROTEIN, WHICH IS DETECTED IN THE ALPHA 2 FRACTION AND APPEARS REGULARLY AT THE II-III STAGES OF THE DISEASE. FACILITY:
KAFEDRA MIKROBIOLOGII, KHAR'KOVSKOGO MEDITSINSKOGO INSTITUTA
BIOFIZICHESKAYA LABORATORIYA, KHAR'KOVSKOGO NAUCHNO-ISSLED. INSTITUTA
VAKTSII I SYVOROTOK, OBLASTNOY ONKOLOGICHESKIY DISPANSER.

UNCLASSIFIED

1/2 012 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--ONCE MORE ON THE AGE OF FLUORITE DEPOSITS OF WEST TRANSBAIKALIA -U-
AUTHOR--ROZINOV, M.I., SHCHEGLOV, A.D. R
COUNTRY OF INFO--USSR
SOURCE--GEOLOGIYA I GEOFIZIKA, 1970, NR 3, PP 133-136
DATE PUBLISHED-----70
SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY
TOPIC TAGS--FLUORITE, MINERALOGY, GEOLOGIC PROSPECTING, GEOPHYSICS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1988/1272 STEP NO--UR/0210/70/000/003/0133/0136
CIRC ACCESSION NO--AP0106053
UNCLASSIFIED

2/2 012
CIRC ACCESSION NO--AP0106053 UNCLASSIFIED PROCESSING DATE--11SEP70
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AN ATTENTION IS PAID ON INADEQUATE
VALIDITY OF OPINIONS OF SOME INVESTIGATORS ON MIDDLE JURASSIC AGE OF
FLUORITE MINERALIZATION OF WEST TRANSBAIKALIA. THE DATA ARE LISTED ON
THE EARLY CRETACEOUS AGE OF THIS MINERALIZATION. THE SIGNIFICANCE OF
MORE PRECISIONALLY DETERMINED AGE OF MINERALIZATION FOR PROSPECTING
WITHIN THE REGION IS STRESSED.

UNCLASSIFIED

USSR

UDC 546.185

ROZINOV, V. G., RUBKINA, V. V., and GRECHKIN, Ye. F., Institute of the State University imeni A. A. Zhdanova and Institute of Petroleum and Carbon-Chemistry Synthesis at the Irkut State University

"Molecular Complexes of Phosphorous Pentachloride With Electron-Donor Aromatic Compounds"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 5, 1972, pp 1167-1168

Abstract: The complexes of PCl_5 with compounds of the form $\text{p-MeOC}_6\text{H}_4\text{X}$ where $\text{X} = \text{H, Me, OMe}$; and $\text{C}_{10}\text{H}_7\text{Y}$, where $\text{Y} = \text{H}$ and $\alpha\text{-OMe}$ were studied photometrically in a dichloroethane solvent. Analogous complexes of the form $\text{PCl}_5 \cdot \text{L}$ are undoubtedly formed where L is $\text{C}_6\text{H}_5\text{X}$, where $\text{X} = \text{H}$ and OEt ; $\text{MeC}_6\text{H}_4\text{Y}$, where $\text{Y} = \text{H}$; o- , m- , and p-Me ; and o- and m-OMe : $\text{MeO}_6\text{H}_4\text{Z}$ where $\text{Z} = \text{o-}$ and m-OMe , and p-Br : $\text{C}_{10}\text{H}_7\text{OMe}$; β : anthracene; and stilbene. Colors of the complex solutions range from greenish-yellow to orange. Solutions of PCl_5 in neutral and electron-acceptor solvents are colorless, indicating the absence of molecular complexes.

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USSR

UDC 535/33/.34:539.18

YAKUTINA, O. A., RATOVSKIY, G. V., FROLOV, YU. L., SERGIENKO, L. M., ROZNIKOV, V. G., Irkutsk University, Irkutsk Institute of Organic Chemistry

"Spectral Study of the Mutual Effect of Functional Groups in Molecules of Tertiary Aromatic Phosphines"

Kiev, Teoreticheskaya i Eksperimental'naya Khimiya, Vol 7, No 4, 1971, pp 514-519

Abstract: At this time there is no single view of the reaction between structural groups within molecules of aromatic phosphines, and the various assumptions made about them lead to contradictions in the interpretation of the electron transitions.

The authors studied electron and Raman spectra for the group $(p-XC_6H_4)_3P$, where $X = H, CH_3, OCH_3, OC_2H_5, Cl, Si(CH_3)_2, N(CH_3)_2$, and also for molecules of $(C_6H_5)_3P(O)$, $(C_6H_5CH_2)_3P(O)$ and finally, $(m-NO_2C_6H_4)_3P(O)$.

The reaction was assumed to take place both by the $p\pi-p\pi$ transition and the $p\pi-d\pi$ transition mechanisms.

1/2 006
UNCLASSIFIED
TITLE--PHOSPHORYLATION OF TRISUBSTITUTED OLEFINS BY PHOSPHORUS
PENTACHLORIDE -U-
AUTHOR-(03)-ROZINOV, V.G., MIKHNEVICH, V.V., GRECHKIN, YE.F.
COUNTRY OF INFO--USSR
SOURCE--ZH. OBHCH. KHIM. 1970, 40(4), 935
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--PHOSPHORUS CHLORIDE, ALKENE, CHEMICAL SUBSTITUENT, METHYLENE,
BENZENE DERIVATIVE, CHLORINE, COMPLEX COMPOUND
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3006/1516
STEP NO--UR/0079/70/040/004/0935/0935
CIRC ACCESSION NO--AP0135177
UNCLASSIFIED

2/2 006

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0135177

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PCL SUB5 REACTS WITH DISUBSTITUTED UNSATD. COMPOS. PROVIDED THAT THERE IS A NUCLEOPHILIC SUBSTITUENT ADJACENT TO THE DOUBLE BOND, AND DOES NOT REACT IF THE SUBSTITUENT IS AN ELECTROPHILIC ONE. IN THE CASE OF TRISUBSTITUTED OLEFINS A SIMILAR ACTIVATION BY NUCLEOPHILIC GROUPS WAS NOTED AND SUCH WEAK GROUPS AS ME WERE EFFECTIVE. THUS WERE ISOLATED SUCH ADDUCTS AS MECH:CYPCL SUB3 PRIME POSITIVE NEGATIVE PCL SUB6 PRIME NEGATIVE WHERE X EQUALS EM, PH, P MEOC SUB6 H SUB4, WHILE Y EQUALS ME OR X EQUALS ME AND Y EQUALS PH, ALL WERE COLORLESS SOLIDS WHICH HYDROLYZE WITH EASE. SINCE THE COMPLEXES TENDED TO DECOMP. IN THE REACTION MIXT., THEIR YIELDS WERE NOT HIGH. REPLACING ONE OF THE ME GROUPS BY PH OR BY MEOC SUB6 H SUB4 RESULTED IN FAILURE OF THE REACTION AND IT WAS IMPOSSIBLE TO ADD PCL SUB5 TO MECPH:CHPH, PH SUB2 C: CHME, OR P MEOC SUB6 H SUB4 CPH:CHME. EVIDENTLY THE STERIC AND ELECTRON ACCEPTOR PROPERTIES COMBINED TO INHIBIT THE REACTION FOR COMPOS. WITH MORE THAN 1 AROMATIC RING. CHLORINATED TRISUBSTITUTED OLEFINS DID NOT ADD PCL SUB5, AND EVEN PHO GROUP FAILED TO CANCEL THE EFFECT OF THE CL ATOMS. THE ABOVE COMPLEXES WERE CONVERTED CONVENTIONALLY INTO CHLORIDES MECH:CYPQCL SUB2 IX EQUALS ME, Y EQUALS PH, B SUB2 130DEGREES, N PRIME20 SUBD 1.5604. FACILITY: IRKUTSK. GOS. UNIV. IM. ZHDANOVA, IRKUTSK, USSR.

UNCLASSIFIED

USSR-

UDC: 547.341

R
ROZINOV, V.G., MIKHNEVICH, V.V., and GRECHKIN, YE.F., Irkutsk State University
Imeni A. A. Zhdanov, Irkutsk, Ministry of Higher and Secondary Specialized Educa-
tion RSFSR

"Phosphorylation of Trisubstituted Olefins With Phosphorus Pentachlo-
ride"

Leningrad, Zhurnal Obschey Khimii, Vol 40, No 4, Apr 70, p 935

Abstract: In a previous article the authors reported that β -disubstituted unsaturated compounds which are considered unphosphorylatable are phosphorylated with phosphorus pentachloride if there are nucleophilic substituents along with the multiple bond and are not phosphorylated if the substituents are electrophilic. In the present article the ideas about activation with nucleophilic substituents in the phosphorylation reaction are extended to trisubstituted olefins. Even such weak electron-donor substituents as the methyl group promote phosphorylation. Previously unknown complex compounds of the type $\text{MeC(X)=C(Y)PCl}_3^+ \cdot \text{PCl}_6^-$, where $\text{X=Me, Ph, p-MeOC}_6\text{H}_4$, given Y=Me and

1/2

USSR

RYBKINA, V. V., et al., Zhurnal Obshchey Khimii, Vol XLIII (CV), No 1, 1973, pp 62-66

by phosphorylation of styrene by phosphorus pentachloride in anumber of apro-
tonic solvents. This reaction is facilitated in the nonionizing aprotonic
solvents. The phosphorylation product yield increases significantly when
the reaction is performed in the presence of phosphorus trichloride. This is
connected with suppression of the side reaction of the chlorination of styrene.
Photocolorimetric analysis confirmed the formation of the $PCl_5 \cdot L$ complexes
with electron donor aromatic ligands. The color of the phosphorus penta-
chloride solution in the solvents -- benzene derivatives -- arises from
analog complex formation.

2/2

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Acc. Nr

AP 0050452

Abstracting Service:
CHEMICAL ABST. 5/70

Ref. Code

4R 0051

105551v Selection of an absorption coefficient model and determination of its parameters for the best approximation of experimental data by results of theoretical calculations. Pokrovskii, A. G.; Rozinskii, M. Ya. (USSR). *Opt. Spektrosk.* 1970, 28(1), 39-42 (Russ). Nonlinear programming procedure was applied for the selection of an absorption coeff. model with parameters to ensure minimal differences between exptl. spectra and theoretical calcs. for real processes. An approxn. method served to est. minimal deviations. The calcn. process is described and practically interpreted by the ir spectra of atm. gases (H_2O at $4230-40\text{ cm}^{-1}$). The method needs further sharpening of the minimization process and choice of such criteria that would make the procedure less time consuming. H. Parizkova

REEL/FRAME
19810431

ROZINSKIY, Ya.

SO: JPRS 54768
DA DEC 71

UDC 612.111.3"52"-06:612.275.1.1
EFFECT OF HYPONIA ON THE DIURNAL RHYTHM OF MITOTIC ACTIVITY IN THE BONE MARROW ERYTHROPOIETIC SYSTEM
Article by S. Rozinskiy, Ya. Kuznetsov, Ya. Rozinskiy and S. Smirnov, Moscow, *Neurochirurgiya i Psichiatrya*, 1971, No 5, 1971, submitted for publication 17 April 1971, pp 14-17

Abstract: Experiments performed on guinea pigs under varying illumination conditions and on animals kept for 14 days at an elevation of 7,000 m revealed a distinct relationship between the mitotic activity of bone marrow cells, erythropoiesis and the illumination pattern. They also demonstrated hypoxic stimulation of the erythropoietic system.

Summary: Investigations (Rozinskiy, et al., 1971; Blumenthal; Bullough; Halberg and Sarnes; Mauer, 1969) demonstrated that during the day there is a change in mitotic activity in different tissues and organs. Under natural illumination conditions the number of mitoses increases at a definite time during the day. Depending on the investigated material and the species of animals and the daily distribution of their activity the greatest number of mitoses is observed at 1900-2400 or at 0200-0500 hours. The hematopoietic system is also subjected to rhythmic changes during the course of the day. The greatest number of mitoses in the erythropoiesis system is observed at 2100-2300 hours when there is illumination for 12 hours per day (0600-1800 hours) (Goldbeck; Mauer). This rhythm is of an endogenous nature but there is also a dependence on illumination, which is expressed in seasonal fluctuations.

Hypoxia-induced hypoxia is a strongly acting factor stimulating erythropoiesis and causing an increase in the number of mitoses in this system even on the first days of its development (Armstrong; Czerski; Volney). Taking into account the data cited in the literature, we deemed it desirable to study the diurnal changes in erythropoiesis in animals subjected to the prolonged effect of 600-maximum high-altitude hypoxia under different illumination conditions.

USSR

UDC:669.753

ROZLOVSKIY, A. A. and SALOMATOV, N. K.

"Pilot-Scale Testing of Electric Melting of Gold-Antimony Concentrates"

Moscow, Tsvetnyye Metally, No 2, Feb 74, pp 33-35

Abstract: The task of this work was a large-scale test of the primary element of a proposed technological system for precipitative electric melting of gold-antimony raw material with extraction of the antimony and concentration of the gold. The results of the tests show that gold-antimony concentrates can be treated by electric melting with good results. The material balance and metal balance are presented for precipitative melting of the gold-antimony concentrate.

1/1

- 98 -

USSR

UDC 669.75.472

BULDAKOV, A. A., ROZLOVSKIY, A. A., VRATSKAYA, G. F., DEMINA, Yu. V.

"Resistance of Refractory Materials in Antimony-Salt Solutions"

Elektrokhim. Rafinirovaniye Tyazh. Legkoplavk. Met. iz Rasplavl. Soley.
[Electrochemical Refining of Heavy Low-Melting Metals from Fused Salts --
Collection of Works], Kiev, Nauk. Dumka Press, 1971, pp 169-172, (Translated
from Referativnyy Zhurnal, Metallurgiya, No 5, 1972, Abstract No 5 G424 by
the author's).

Translation: The corrosion resistance of structural materials in type SU-2
Sb melt and an equimolar mixture of NaCl + KCl is studied. The following
technical refractories were tested: pure oxides, ceramic construction
materials, oxygen-free compounds, sitalls, and heat-resistant concrete. The
resistance of the materials was determined from the change in weight of a
specimen following repeated immersion in the melt and long holding. Pure
materials of the oxides Al_2O_3 , MgO, and ZrO_2 are recommended. 2 Tables.

1/1

1/2 011 UNCLASSIFIED PROCESSING DATE--02OCT70
TITLE--REDUCTIVE PRECIPITATION ELECTRIC SMELTING OF ANTIMONY CONCENTRATES
WITH A ROASTED MATTE -U-
AUTHOR--(03)-ROZLOVSKIY, A.A., SOLOMATOV, N.K., GAMALIY, L.I.
COUNTRY OF INFO--USSR
SOURCE--TSVET. METAL. 1970, 43(1), 22-6
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--ANTIMONY, COKE, ROASTING FURNACE, ELECTRIC FURNACE, IRON,
METALLURGICAL PROCESS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/0750

STEP NO--UR/0136/70/043/001/0022/0026

CIRC ACCESSION NO--AP0107292

UNCLASSIFIED

2/2 011

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0107292

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A FLOW CHART SHOWING THE CHAIN OF APP. USED FOR REDUCTIVE PPTN. ELECT. SMELTING OF SB CONCS. WITH A ROASTED MATTE IS DESCRIBED IN DETAIL. THE OPTIMUM CONDITIONS AS APPLICABLE TO THE DESIGN OF THE ENTIRE APP. ARE PRESENTED. THE OPTIMUM COMPN. OF THE BATCH WAS 18 PARTS FE CHIPS, 24 PARTS SODA ASH, 15 PARTS LIMESTONE, AND 4 PARTS COKE DUST, ALL PER 100 PARTS CONC. THE MATERIAL BALANCE AND THE BALANCE OF THE METALS ARE IMPORTANT AND ARE DISCUSSED. REDUCTIVE PPTN. ELEC. SMELTING OF SB CONCS. WITH A ROASTED MATTED HAS MANY ADVANTAGES AS COMPARED WITH THE METHOD OF PPTN. SMELTING OF SB CONCS. AMONG THE SHORTCOMINGS OF THE REDUCTIVE PPTN. METHOD ARE LOWER M.P. OF THE CONC. AND INCREASED CONSUMPTION OF ELEC. ENERGY, WHICH CAN BE ELIMINATED BY ORGANIZED GRANULATION AND CONTINUOUS LOADING OF THE BATCH.

UNCLASSIFIED

1/3 038 UNCLASSIFIED PROCESSING DATE--09OCT70
TITLE--CORROSION RESISTANCE OF REFRACTORY MATERIALS IN ANTIMONY SALT MELTS
-U-
AUTHOR--(04)-BULDAKOV, A.A., ROZLOVSKIY, A.A., IGNATOVA, T.S., NAZAROVA,
T.I.
COUNTRY OF INFO--USSR
SOURCE--OGNEUPORY 1970, 35(1), 35-7
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--MAGNESIUM OXIDE, ALUMINUM OXIDE, TIN, ALLOY, REFRACTORY
MATERIAL, ANTIMONY, SODIUM CHLORIDE, POTASSIUM CHLORIDE, ELECTROLYTE,
LEAD, IRON, COPPER, CORROSION RESISTANCE, METAL POWDER/UISUZ ANTIMONY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1993/1955 STEP NO--UR/0131/70/035/001/0035/0037
CIRC ACCESSION NO--AP0114373
UNCLASSIFIED

273 038

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0114373

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CORROSION RESISTANCE OF A LARGE NO. OF REFRACTORY MATERIALS SIMULTANEOUSLY IN CONTACT FOR 250 HR WITH SB SALTS AND NACL PLUS KCL SOLN. AT 800DEGREES IN AN EXPTL. INDUSTRIAL ELECTROLYZER WAS DETD. THE ELECTROLYTE CONTAINED EQUIMOLAR MIXT. OF TECH. GRADE NACL AND KCL. INTERACTION OF THE MATERIALS USED OCCURRED NOT ONLY WITH CHLORIDES BUT ALSO WITH SOLNS. OF NA AND K IN THESE CHLORIDES. THE ELECTROLYTE WAS SATD. WITH IMPURITIES CONSISTING OF PB 0.25-0.60, FE 0.04-0.28, CU 0.008-0.07, NI 0.001, AS 0.01-0.054, AND S 0.14-0.595PERCENT. RECTANGULAR PRISMS OR TABLOID SHAPED SPECIMENS OF MGO, AL SUB2 O SUB3, AIN, SI SUB3 N SUB4, BN, 80BN PLUS 20SI SUB3 N SUB4, 60BN PLUS 40SI SUB3 N SUB4, 78SI SUB3 N SUB4 PLUS SIC, 20MGO PLUS 80SI SUB3 N SUB4, 40MGO PLUS 60SI SUB3 N SUB4, KMG SUB3 SI SUB3 ALO SUB10 F SUB2 AND OF CEMENT OF MG PHOSPHATE WITH CARBORUNDUM FILLER WERE TESTED. THESE WERE PLACED VERTICALLY IN A GRAPHITE CRUCIBLE OF 30 MM HEIGHT AND 20 MM DIAM. WHICH WAS HALF FILLED WITH POWDER OF SB (SU-2 GRADE). AN OPENING OF 4 MM DIAM. WAS MADE IN THE UPPER PART OF THE CRUCIBLE FOR CIRCULATION OF THE ELCTROLYTE. THESE SPECIMENS WERE THEN SUBJECTED TO THE ACTION OF SB MELT AND THE ELECTROLYTE AT 800DEGREES CRUCIBLE WAS HEATED IN A SILIT OVERN. SPECIMENS WERE THEN WEIGHED AFTER BOILING IN DISTD. WATER FOR 14 HR AND DRIED AT 150DEGREES FOR 10 HR. THE OUTER APPEARANCE AND THE CONDITION OF SPECIMENS AFTER TESTING HAVE BEEN GIVEN.

UNCLASSIFIED

3/3 038

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0114373

ABSTRACT/EXTRACT--MGU, AL SUB2 O SUB3, AIN, 20MGU PLUS 80SI SUB3 N SUB4,
40MGU.60SI SUB3 N SUB4, AND KMG SUB3 SI SUB3 ALO SUB10 F SUB2 ARE
RECOMMENDED AS QUALITY MATERIALS FOR REFINING OF SB FROM ALLOYS BECAUSE
OF THEIR GOOD CORROSION RESISTANCE. FACILITY: VOST. INST.
OGNEUPOR., SVERDLOVSK, USSR.

UNCLASSIFIED

USSR

Combustion

UDC 541.126.2.011.4

R
~~ROZLOVSKIY, A. I.~~, Institute of Organic and Physical Chemistry imeni
A. Ye. Arbuzov, Kazan, Academy of Sciences USSR

"More Precise Definition of Flame Propagation Conditions"

Moscow, Doklady Akademii Nauk SSSR, Vol 192, No 1, May-Jun 1970,
pp 135-137

Abstract: The theory of flame propagation relates the values of normal flame velocity at the border of its propagation and the intensity of heat losses to unit volume of the cooling zone of the burning. The author discusses the above relationship from the point of view of new, more precise data on flame velocity in subcritical composition mixtures of various fuels and the intensity of heat emission by radiation. The author thanks YA. B. ZEL'DOVICH for his valuable comments.

1/1

USSR

UDC 621.382.3

VIKTOROV, D.V., KULAKOVA, A.F., ROZMAN, I.M.

"Effect Of Irradiation By 14 Mev Neutrons On Some Parameters Of P217V and IT906A Transistors"

V sb. Radiats. fiz. nemet kristallov. T.3 Ch.2 (Radiation Physics Of Nonmetallic Crystals. Vol 3, Part 2--Collection Of Works), Kiev, "Nauk.dumka," 1971, pp 214-219 (from RZh--Elektronika i yeye primeneniye, No 12, Dec 71, Abstract No 12B532)

Translation: The paper investigates the dependences of the static transmission coefficient of the current V_{st} at the boundary of the saturation region and of the reverse current of the collector I_{co} with a disconnected output of the emitter, on the integrated neutron flux ϕ . It is found that with respect to V_{st} , a type IT906A transistor is approximately eight times more resistant to irradiation than a type P217V transistor. The reverse current is comprised of the bulk current I_b and of the surface leakage current I_1 : $I_{co} = I_b + U/R_1$. With an increase of the flux ϕ , I_b increases and R_1 (resistance for surface leakage) is decreased. After attainment of the flux $\phi = 4 \cdot 10^{12} \text{ cm}^{-2}$, R_1 almost does not change from one transistor to another, even if the initial values of their R_1 differ strongly. 6 ill. 3 ref. I.M.

1/2 032 UNCLASSIFIED PROCESSING DATE--3000170
TITLE--ELECTRON EXCITATION ENERGY TRANSFER IN LIQUID SOLUTIONS. III -C-

AUTHOR--(05)--AGREST, M.M., ANDREYESHCHEV, YE.A., KILIN, S.F., RIKENGLAZ,
M.M., KOZMAN, I.M.
COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. FIZ. 1970, 34(3), 625-31

DATE PUBLISHED--70

SUBJECT AREAS--CHEMISTRY, PHYSICS

TOPIC TAGS--EXCITATION ENERGY, AROMATIC ETHER, CYCLOHEXANONE, ETHYLENE
GLYCOL, ETHANOL, SOLVENT ACTION, NAPHTHOL, ABSORPTION SPECTRUM,
FLUORESCENCE SPECTRUM, ELECTRON DONOR

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--2000/0972

STEP NO--UR/0048/70/034/003/0625/0631

CIRC ACCESSION NO--AP0124631

UNCLASSIFIED

2/2 032

UNCLASSIFIED

PROCESSING DATE--30OCT70

IRC ACCESSION NO--AP0124631

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE THEORETICALLY DERIVED EXPRESSION FOR THE DISSOCN. OF THE EXCITED STATE OF THE DONOR MOLES. IN THE PRESENCE OF ACCEPTOR MOLES., IN WHICH THE ENERGY TRANSFER OCCURS EITHER THROUGH A LONG DISTANCE MECHANISM (DIPOLE DIPOLE INTERACTION) OR THROUGH MOL. COLLISION (EXCHANGE INTERACTION), WAS STUDIED BY EXAMG. 3 PAIRS OF DONOR ACCEPTOR SYSTEMS IN SOLVENTS OF VARIOUS VISCOSITY. THE SYSTEMS: (A) DIPHENYL ETHER-CYCLOHEXANONE IN ETHYLENE GLYCOL AND (B) IN ETOH; (C) AND (D), RESP., DIPHENYL ETHER-2,5,DIPHENYLOXAZOLE IN THE SAME SOLVENTS; (E) 2,NAPHTHOL-1,3,5,TRIPHENYLPYRAZOLINE IN ACET, (F) ETOH, AND (G) N,BUCH, OR (H), (J), AND (K), RESP., IN THESE SOLVENTS BUT PURGED WITH N. THE ABSORPTION SPECTRA, FLUORESCENCE SPECTRA, QUANTUM YIELDS, DONOR FLUORESCENCE DECAY AND QUENCHING, AND SENSITIZATION OF THE ACCEPTOR FLUORESCENCE WERE MEASURED, YIELDING VALUES FOR ACCEPTOR CONCNS. FOR HALFQUENCHING THE FLUORESCENCE AND DATA ON THE MECHANISM OF ENERGY TRANSFER. GOOD AGREEMENT OF THEORY WITH EXPT. WAS FOUND FOR A AND B, WHERE THE LONG RANGE MECHANISM DOES NOT CONTRIBUTE AND ALSO IN D WHERE THIS MECHANISM PREVAILS. FOR E-K THE COLLISION MECHANISM IS NEGLIGIBLE. GOOD AGREEMENT WITH EXPT. IS FOUND FOR E-J BUT NOT FOR G AND K. THIS COULD NOT BE EXPLAINED. THE CONTRIBUTION OF BOTH MECHANISMS TO THE INITIAL QUENCHING CONST. IS DISCUSSED.

UNCLASSIFIED

1/2 021

UNCLASSIFIED

PROCESSING DATE--30OCT70

TITLE--RADIOCLUMINESCENCE OF ORGANIC MATTER. VI. FLUORESCENCE AND
PHOSPHORESCENCE IN FROZEN SOLUTIONS DURING X RAY AND PHOTOEXCITATION -U-
AUTHOR-(04)-ANDREYESHCHEV, YE.A., KILIN, S.F., ROZMAN, I.M., SPURNY, F.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. FIZ. 1970, 34(3), 662-6

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY, PHYSICS

TOPIC TAGS--RADIOCLUMINESCENCE, X RAY, BENZENE, NAPHTHALENE,
PHOSPHORESCENCE, FLUORESCENCE, LIGHT EXCITATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--2000/1626

STEP NO--UR/0048/70/034/003/0662/0666

CIRC ACCESSION NO--AP0125248

UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125248

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PHOTO AND RADIOLUMINESCENCE OF BENZENE AND NAPHTHALENE (I) IN CYCLOHEXANE, DECALIN, PHME, AND ETOH AT 77DEGREESK WERE MEASURED; THE PHOSPHORESCENCE SPECTRA WERE SEP. RECORDED, AND THE PHOSPHORESCENCE FLUORESCENCE RATIO DURING X RAY AND PHOTOEXCITATION WAS ESTD.

UNCLASSIFIED

Acc. Nr.:

AP0041160

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Ref. Code:

UR 0121

USSR

UDC 621.9.047.7.06

ROZMAN, YA. B.

"Power-Supply Units for Electrochemical and Anodic-Mechanical Machine Tools"

Moscow, Stanki i Instrument, No 1, 1970, pp 15-17

Abstract: The article deals with the design considerations leading to the development of power-supply units for electrochemical and anodic-mechanical machine tools. Such power-supply sources must provide currents from 100 - 25,000 amperes and voltages from 2 - 236 volts, must provide for the smooth regulation and stabilization of the rectified voltage or current with an error of not less than $\pm 10\%$ with respect to the initial value of the voltage or current, must provide for an operating time of the protection system against short circuits not in excess of 0.03-0.05 seconds and a minimum pulsation of the rectified voltage; provisions must be made for remote control and for automatic change of the current or voltage in accordance with change of the technological require-

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Reel/Frame

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ments; a high degree of reliability is required. Power-supply units of this type, presently in production, are described and their specifications are given.

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19750945

2/2

1/2 009 UNCLASSIFIED
TITLE--EFFECT OF OLEIC ACID ON YEASTS -U- PROCESSING DATE--20NOV70
AUTHOR--(G4)-ROZMANOVA, N.V., PALASINA, N.K., CHERNYSH, V.G., STAFEYEVA,
I.A.
COUNTRY OF INFO--USSR
SOURCE--PRIKL. BIKHIM. MIKROBIOL. 1970, 6(3), 303-6
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--OLEIC ACID, YEAST
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3007/0119 STEP NO--UR/0411/70/006/003/0303/0306
CIRC ACCESSION NO--AP0135615
UNCLASSIFIED

2/2 009

CIRC ACCESSION NO--AP0135615

UNCLASSIFIED

PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. OLEIC ACID ADDED AT 20 KG-TON OR MORE TO BAKERS' YEAST GROWN IN MOLASSES MINERAL MEDIUM SOMEWHAT INCREASED THE YIELD OF BIOMASS AND SIGNIFICANTLY ACCELERATED PROTEOLYSIS DURING STORAGE OF YEAST. IT IS NOT CLEAR WHETHER THIS IS DUE TO DIRECT ACCELERATION OF PROTEOLYSIS BY THE HIGH OLEIC ACID CONCN. OR TO THE TOXIC ACTION OF OLEIC ACID OXIDES. FACILITY: LENINGRAD RES. INST. FOOD IND., LENINGRAD, USSR.

UNCLASSIFIED

Miscellaneous

USSR

UDC 539.214:537.3

TROITSKIY, O. A., and ROZNO, A. G., Institute of Solid State Physics,
Academy of Sciences USSR

"Effect of the Electrical Current on the Plastic Flow of Metal"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 30, No 4, Oct 70, pp 824-829

Abstract: A study was made of the plastic flow of zinc single crystals and polycrystals of zinc, cadmium, lead, and indium under the effect of direct and pulsed electrical current. Plastic flow was not observed under the effect of direct current. In the case of the pulsed method (600-4800 amp, pulse duration 10^{-4} sec) considerable peaks of the plastic flow were detected. In the elastic region the current pulses showed no influence. An anomalously large number of peaks was observed in the area of the yield point of the specimens. This phenomenon is explained by the disruption resulting from the current pulses of fluctuating dislocation configurations.

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USSR

ROZONOER, L. I.

UDC 577.4

"Random Logical Networks"

V sb. Avtomaty, gibridn. i upravlyayushch. mashiny (Automata, Hybrid and Control Machines -- collection of works), Moscow, Nauka Press, 1972, pp 33-37
(from RZh-Kibernetika, No 7, Jul 72, Abstract No 7V375)

No abstract

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1/2 025
UNCLASSIFIED
PROCESSING DATE--04DEC70
TITLE--PAINT AND VARNISH COATINGS APPLIED BY ELECTRODEPOSITION -U-
AUTHOR--(05)-TIKHONOVA, R.M., TSYRLIN, M.I., ZHURAVLEV, A.K., ROZNO, L.I.,
KISTANOVA, G.A.
COUNTRY OF INFO--USSR
SOURCE--AVTO. PROM. 1970, 36(4), 39-41
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--ELECTRODEPOSITION, PAINT, VARNISH, TEST METHOD, AUTOMOBILE,
CORROSION RESISTANCE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3007/0773
STEP NO--UR/0113/70/036/004/0039/0041
CIRC ACCESSION NO--AP0136210
UNCLASSIFIED

2/2 025

CIRC ACCESSION NO--AP0136210
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--04DEC70

ABSTRACT. A TESTING METHOD WAS DEVELOPED FOR
DETG. THE CORROSION RESISTANCE OF AUTOMOTIVE COATINGS. THE SAMPLES WERE
EXPOSED TO A SPRAY OF 3PERCENT NACL SOLN. AT 40-50DEGREES IN A SPECIAL
CHAMBER. SINGLE ENAMEL LAYERS DEPOSITED ON PHOSPHATIZED METAL BY THE
ELECTROSTATIC METHOD WERE CORRODED FASTER THAN THE COATINGS OBTAINED BY
THE CONVENTIONAL SPRAYING OF A GROUND COAT FOLLOWED BY AN ENAMEL.
FACILITY: GORK. AVTOZAVOD, GORKI, USSR.

UNCLASSIFIED

USSR

UDC 51.155.001.57.681.3.06

AYZERMAN, M.A., BRAVERMAN, E. M., ROZONOER, L.I.

"Method of Potential Functions in the Theory of Machine Learning"

Metod. Potentsial'nykh Funktsiy v Teorii Obucheniya Mashin [English Version Above]
Moscow, Nauka Press, 1970, 384 pages (Translated from Referativnyy Zhurnal Kiber-
netika, No. 4, April, 1971, Abstract No. 4 V702K).

Translation: This monograph sums up the work of authors on development of the method of potential functions and its use in problems of pattern recognition, identification and automatic classification. Particular attention is given to mathematical problems related to the convergence of random processes, arising when the method is used, and its relationship to other methods of learning theory (in particular, methods of stochastic approximation). The reader must know mathematics as taught in a technical university; all other necessary information is provided by the authors. The book is designed for engineers and mathematicians working in the area of cybernetics, and also for students and graduate students specializing in this area.

The chapters are: Chapter I. Problem of Teaching Machines to Recognize Patterns (Statement of the Problem); Chapter II. Method of Potential Functions; Chapter III. Selection of a System of Functions $\psi_i(x)$ and Potential Function $K(x, y)$. IV. Convergence of Primary Procedure of Potential Functions Method;

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USSR

UDC 51.155.001.57.681.3.06

AYZERMAN, M. A., BRAVERMAN, E. E., ROZONOER, L. I., Metod. Potentsial'nykh Funktsiy v Teorii Obucheniya Mashin, Moscow, Nauka Press, 1970, 384 pages.

Chapter V. Application of Method of Potential Functions to Problem of Teaching Machines to Recognize Patterns (Deterministic Statement of Problem); Chapter VI. Application of Method of Potential Functions to Problem of Approximation of Functions on the Basis of Values at Points Selected at Random; Chapter VII. Probabilistic Problem of Teaching Machines to Recognize Patterns; Chapter VIII. Teaching Without a Teacher.

2/2

USSR

UDC 615.216.5.015.45:612.13

RAYSKIY, V. A., ROZONOV, Yu. B., and CHICHKANOV, G. G., Moscow Institute of Psychiatry, RSFSR Ministry of Health, and Institute of Pharmacology, Academy of Medical Science USSR

"Nature and Mode of Action of Diazepam on Some Parameters of the Blood Circulation"

Moscow, Terapevticheskiy Arkhiv, No 8, 1973, pp 35-39

Abstract: Peroral administration of diazepam had no significant effect on the pulse rate, blood pressure, or EKG of cardiac patients with or without postinfarction neurotic manifestations. However, parenteral injection of the drug produced moderate hypotension, weak or moderate bradycardia and, in some cases, tachycardia. Experiments on cats showed that the hypotensive effect of diazepam is caused by a decrease in vascular tone resulting mainly from inhibition of the central regulation of sympathetic tone. The drug also relaxed briefly the smooth musculature of the vascular walls.

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Biochemistry

USSR

UDC 541.144.7:577.471+577.471:546.11

ZAKHZHEVSKIY, D. A., ROZONOVA, L. N., and KUTYURIN, V. M., Institute of Photosynthesis, Academy of Sciences USSR, Pushchino-on Oka, and V. I. Vernadskiy Institute of Geochemistry and Analytical Chemistry, USSR Academy of Sciences, Moscow

"Specific Effect of a Hydrogen Atmosphere on Oxygen Release by Tradescantia Chloroplasts"

Moscow, Doklady Akademii nauk SSSR, No 4, 1973, pp 980-982

Abstract: Tradescantia fluminesis chloroplasts were exposed to light after dark incubation under anaerobic conditions in an atmosphere of different gases. Incubation of the chloroplasts in helium and nitrogen had no effect on the release of oxygen; in both cases in intensity of the process was comparable to the aerobic control. Incubation of the chloroplasts in a nitrogen atmosphere, on the other hand, suppressed oxygen release. The inhibitory effect progressed quickly and after one hour of incubation, the rate of oxygen release decreased by 50% on the average. Unlike whole leaves, the effect of H_2 on isolated plastids was not reversible.

1/1

USSR

UDC 621.771-216.5 :621.
.7.011:539.4.014.1

ROZORENOV, V. A., Engineer, MOROZOV, Doctor of Technical Sciences,
LEONOV, V. F., Engineer, and SOPRONOV, Ye. I., Candidate of Tech-
nical Sciences

"Deformation and Stresses in Mounts of Roll Stands of Four-High
Rolling Mills"

Moscow, Vestnik Mashinostroyeniya, No 9, Sep 73, pp 16-21

Abstract: The strength conditions in the mount of a roll stand
of the four-high rolling mill 5000 of the All-Union Scientific
Research, Planning, and Design Institute of Metallurgical Machi-
nery were calculated. The deformations and stresses were deter-
mined, using Castigliano's theorem, for a simplified form of the
mount according to a presented schema. The applied calculation
method of the inflexibility and strength of closed type mounts
considers the clearance between the mount stands and the bea-
rings of supporting rolls and the variable stiffness of cross
ties. On a level with the calculations, including the fatigue
strength, the stressed condition of the mount was also investi-
gated by the polarization-optical method on a simplified model

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USSR

ROZORENOV, V. A., et al., Vestnik Mashinostroyeniya, No 9, Sep 73, pp 16-21

of optically active ED6-M material. The results are discussed by reference to optical stress-strain pictures (photoelastic method) and the stress-strain diagram of contour stresses. Determined values of the reserve strength factor and of the deformation and rigidity of the mount are interpreted. Four figures, two tables, twelve formulas, two bibliographic references.

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1/2 023
UNCLASSIFIED
TITLE--EMV-100L ELECTRON MICROSCOPE -U-
PROCESSING DATE--27NOV70
AUTHOR--(04)--STOYANOV, P.A., MOSEYEV, V.V., ROZORENOVA, K.M., RENSKIY, I.S.
COUNTRY OF INFO--USSR
SOURCE--PRIB. TEKH. EKSP. 1970, 1, 211-16
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--ELECTRON MICROSCOPE, PERMALLOY, OPTIC LENS, MOLYBDENUM OXIDE,
INORGANIC CRYSTAL/(U)EMV100L ELECTRON MICROSCOPE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1996/1863
STEP NO--UR/0120/70/001/000/0211/0216
CIRC ACCESSION NO--AP0118827
UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0118827

ABSTRACT/EXTRACT--(U) GP-0--

ABSTRACT. A NEW ELECTRON MICROSCOPE WITH HIGH RESOLN. IS DESCRIBED. ALL ITS LENSES ARE MADE FROM DIFFERENT TYPES OF PERMALLOY. THE COLUMN OF THE MICROSCOPE HAS HIGH MECH. STABILITY. THE THEORETICAL RESOLN. OF 2 ANGSTROM WAS REALIZED IN PRACTICE. THE ELECTRON OPTICAL MAGNIFICATION IN PHOTOGRAPHING IR PARTICLES ON A C SUBLAYER WAS 440,000 TIMES. PHOTOGRAPHS OF THE AU LATTICE, (200) PLANE, AND FRESNEL DIFFRACTION BANDS ON THE EDGE OF MOO SUB3 CRYSTALS ARE GIVEN.

UNCLASSIFIED

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UDC 591.1

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ROZOV, A. A., Institute of Higher Nervous Activity and Neurophysiology, Academy of Sciences USSR (Presented by Academician V. V. Parin)

"The Effect of the Autonomic Nervous System on the Permeability of the Blood-Brain Barrier for Ca^{45} "

Moscow, Doklady Akademii Nauk SSSR, Vol 192, No 3, 1970, pp 687-690

Abstract: White rats were used to study changes in the blood-brain barrier with respect to Ca^{45} penetration when the condition on the autonomic nervous system was changed by administration of adrenalin. The parasympathetic nervous system was stimulated by intravenous injection of carbocholine. Ca^{45} in the form of Ca^{45}Cl served as an indicator of the permeability of the blood-brain barrier. This permeability was observed in various parts of the brain (cortex, caudal nucleus, thalamus, hypothalamus, pituitary, medulla oblongata, and cerebellum) of treated and untreated animals. It was found that adrenalin stimulation of the sympathetic nervous system leads to enhanced Ca^{45} penetration of the blood-brain barrier in most parts of the brain. When the parasympathetic nervous system is stimulated by carbocholine, the Ca^{45} penetration in the cortex, caudal nucleus, thalamus, hypothalamus, and cerebellum is reduced. The maximum reaction is achieved after 2 min and disappears after 5 or 15 min. Thus, when

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ROZOV, A. A., Doklady Akademii Nauk SSSR, Vol 192, No 3, 1970, pp 687-690

the sympathetic nervous system is stimulated, the sympathomimetic substances in the blood (in these experiments the Ca ions) cross the blood-brain barrier and exert a direct effect on the autonomic centers, exciting the parasympathetic nervous system. When the parasympathetic system is excited, the transition of sympathomimetic substances is reduced, so that excitation of sympathetic centers is enhanced.

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Optical

USSR

UDC: 539.1.073.3

ALEKSAKOV, G. N., KOL'TSOV, I. M., MAMAYEV, V. L., ROZOV, B. S., Moscow
"Order of the Red Banner of Labor" Engineering Physics Institute

"A Precision Deflecting Device"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obratzsy, Tovarnyye Znaki,
No 2, Jan 72, Author's Certificate No 324600, Division G, filed 3 Dec 70,
published 23 Dec 71, p 148

Translation: This Author's Certificate introduces a deflecting device for coding graphic information which contains a scanning mirror with electromagnetic drive, and an interferometer device for measuring displacements of the scanning beam. As a distinguishing feature of the patent, construction is simplified, the overall dimensions of the device are reduced, and accuracy is improved by fastening the scanning mirror on a point support and making the optical reflectors of the interferometers in the form of triple prisms located on the mounting of the scanning mirror, while the current coils of the drive are made in the form of two mutually perpendicular semicircles fastened to the mirror mounting and

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ALEKSAKOV, G. N. et al., Soviet Patent No 324600

located in the gap of a permanent magnet whose pole pieces are concentric spheres.

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AA0040739

Rozov, K.V.

UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 1-70

242372 TYRE MANUFACTURE This invention relates to equipment for rolling the folded layers of a tyre carcass, and consists of a centre shaft (1) with longitudinal grooves in which the diaphragm (2) is mounted in conjunction with the ring-and-bearing assemblies (3). Each of these rings is fitted with a spring-loaded support (4). The centre ring (5) is fastened rigidly on the centre shaft so that the centre section of the article being made can be rolled under pressure. The friction roller (6) is the power drive. This design is an improvement on previous rolling equipment, in that the friction between the rolling rings and the surface of the article being rolled is almost eliminated, and permits articles having different profiles to be treated.

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4.2.63, as 818235/23-26 PINOVSKII, M.L. and others
Tyre Ind. Res. Inst. (8.9.69) Bul. 15/25.4.69.
Class 39a⁶ Int. Cl. B 29h. |

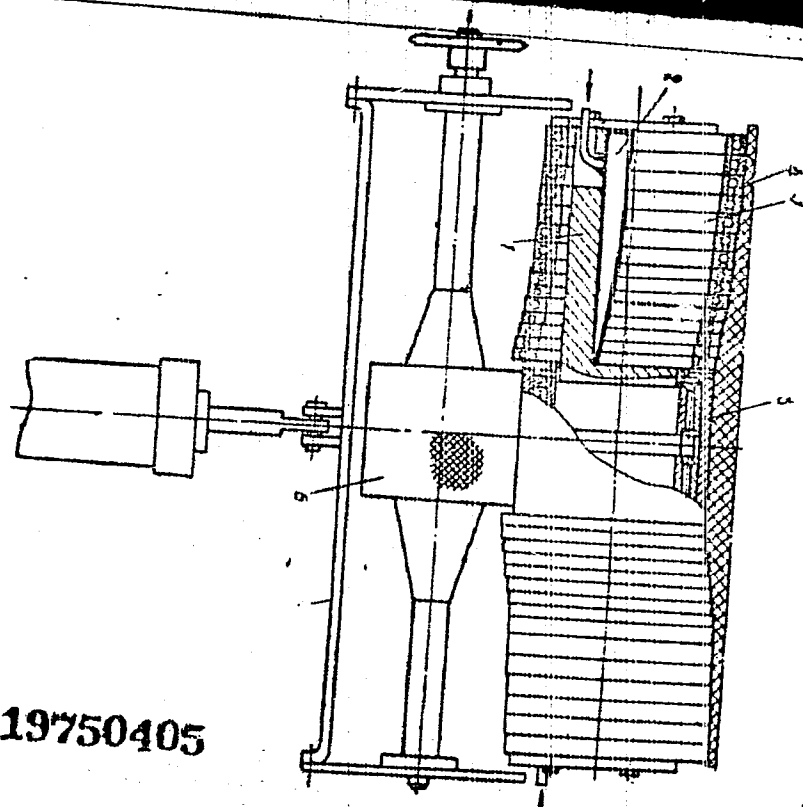
AUTHORS: Pinovskiy, M. L.; Rozov, K. V.; Vil'k, V. S.; and
Karmatskiy, Yu. I.

Nauchno - Issledovatel'skiy Konstruktorsko -
Tekhnologicheskii Institut Shinnoy Promyshlennosti

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AA0040739



ROZOV, N.Y.

SPRS 56,499
14 JULY 72

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CONSTRUCTING MEDICAL MONITORING EQUIPMENT FOR SPACEFLIGHT
DATA THROUGH A COMMUNICATION CHANNEL WITH LOW CAPACITY
Article by N. I. Korshakov and N. Y. Rozov, Moscow, USSR
N.Ye. Vorobey, Gorkhovsky Shkola, Gorkhovsky (Gorkhovsky) Insti-
tute in Space Biology and Medicine, Moscow, 1971, pp. 15-16.

The present stage in space conquest, characterized by a
continuous increase in the duration and number of space flights,
and also by an increase in the scope and complexity of experi-
mental investigations in space, imposes a number of essential
requirements on medical monitoring systems for cosmonauts.
Among these requirements, the most important are those
which are imposed on medical monitoring equipment by the radio-
telemetric systems of space vehicles.

The most economical, from the power-use point of view,
and at the same time the most noise-immune communication re-
quirements for a stipulated noise level in the communication chan-
nel are, as is well known, "low-information" communication re-
quirements.

As long as there is a deficit of power aboard space
vehicles, these communication systems will evidently be used
most of the time during communication contacts with the ground-
station complex during the execution of long space flights.

Taking this into account, the problem of developing
quite rigorous methods (from the point of view of the theory
of information) for matching the volume of physiologic infor-
mation entering the radio channel with the capacity of this
channel is one of the most timely problems in developing prom-
ising medical monitoring systems.

USSR

UDC: 533.95

GANNITSKIY, A. I., DROBYSHEVSKIY, E. M., ROZOV, S. I.

"Concerning the Effect of Hydrodynamics on the Distribution of Charge Carrier Concentration in a Homopolar Generator"

V sb. Vopr. fiz. nizkoterperatur. plazmy (Problems in the Physics of Low-Temperature Plasma—collection of works), Minsk, "Nauka i tekhn.", 1970, pp 327-330 (from RZh-Mekhanika, No 4, Apr 71, Abstract No 4B96)

Translation: The paper deals with the problem of the effect of hydrodynamic flow on ionization-diffusion equilibrium of the discharge in the transverse magnetic field of a homopolar generator. The case where the velocity of hydrodynamic flow is comparable in magnitude with the rate of diffusion of the charged particles is considered. Hydrodynamic equations of motion of an incompressible gas are solved simultaneously with the equations of diffusion-ionization equilibrium. The results of computer calculations are given for a discharge in argon when the temperatures of the ions and neutral particles are equal to 500°K, the pressure is 0.1 mm Hg, the magnetic field is 1000 G, and the current is 10 A. V. P. Shimchuk.

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USSR

UDC 518.517.25

KONTOROVICH, M. I., KARATYGIN, V. A., and ROZOV, V. A., Leningrad

"Asymptotic Calculations of a Double Integral for the Case of a Stationary Line"

Moscow. Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol 10, No 4, Jul/Aug 70, pp 811-817

Abstract: Integrals of the type $\int_S f e^{ik\phi} ds$ occurring in problems concerning wave diffraction and antenna theory are discussed; it is noted that the approximate calculation of such integrals for large values of the parameter k is ordinarily based on the stationary phase method and leads to expansions in which stationary terms and contour integrals figure. The case in which the phase function ϕ is extremal not at one point but on a certain curve which is called the stationary line is considered. Integrals of this type are obtained in calculating the spread between rectangular antennas with parallel sides or coaxial parabolic antennas generally speaking, in cases in which the function ϕ has the sense of the distance between points on parallel curves. The initial integral is reduced to the sum of integrals of slowly varying functions in terms of a stationary line and the sum of integrals over the curve L enclosing S .

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USSR

UDO 621.396.234

ROZOV, V.M., VINOGRADOV, A.A., NOSOV, V.I. [Members, Scientific-Technical Society of Radio Engineering, Electronics, And Communication imeni A.S. Popov]

"Effect Of AGC On The Level Of Transient Interference In Multichannel Systems Of Shortwave Communication"

Radiotekhnika, No 4, Apr 1972, pp 1-7

Abstract: The effects are considered of a change of the amplitude of signals in a shortwave channel on the level of transient noise in communication systems with orthogonal signals. A method is presented for finding the averaged value of the rate of change of the signal envelope from the integral distribution of the envelope, making it possible to manage without involved mathematical apparatus. The decrease of the reliability of reception because of transient interference during fading is evaluated and the requirements are determined for an automatic gain control system in the receiving channel [trakt] of the multiplexing device in order to reduce the probability of error. An analysis is made of the impairment of orthogonality under conditions of slow fading when the signal envelope throughout the sample changes insignificantly and abrupt phase fluctuations leading to a frequency drift of the signal being received are absent. Knowing the magnitude of the signal and the transient interference, it is possible to find

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ROZOV, V.M., et al, Radiotekhnika, No 4, Apr 1972, pp 1-7

the dependence of the signal/noise ratio on the principle and rate of change of the signal amplitude. It is demonstrated that transient interference reduces the reliability of reception which cannot be increased by an increase of the signal power. However, it can be decreased by separation of all the bands of a telephony channel into narrow bands and the use of AGC in each of them. 1 tab. 4 ill. 6 ref. Received, 3 July 1970; after further improvement, 1 Feb 1971.

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USSR

UDC: 621.391.519.2

ROZOV, V. M.

"Energy Aspect of Matching the Characteristics of an Amplifier of Modulated Oscillations and Signal Parameters"

Tr. Mosk. elektrotekhn. in-ta svyazi (Works of the Moscow Electrical Engineering Institute of Communications), 1970, vyp., pp 104-108 (from EZh-Radiotekhnika, No 11, Nov 70, Abstract No 11A62)

Translation: The variety of relationships for instantaneous values of plate circuit efficiency $\eta_k(x)$ in the stages of amplifiers of modulated oscillations as a function of the modulation parameter x does not in the general case permit a unique answer to the question of what the characteristics of the amplifier must be to reach maximum average efficiency. A general solution to the problem of maximum $\bar{\eta}_x$ is found which shows that this average efficiency takes on the maximum value throughout the interval of values of x under the condition $\alpha\eta_k(x) - W(x) = 0$, where α is the proportionality factor; $W(x)$ is the distribution of probability density for signal amplitudes. Thus the maximum average efficiency of amplifiers of modulated oscillations may be attained only if the characteristic $\eta_k(x)$ of the amplifier is matched to the statistics of the signal to be amplified. It is shown that an analogous result may be found from the Cauchy-Schwartz inequality. One illustration, bibliography of seven titles. L. S.

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Extraction and Refining

USSR

UDC 669.24.053.4.068

ROZOV, V. N.

"Introduction of Extraction Processes to the Production of Nickel and Cobalt"

Sintez, Ochistka i Analiz Neorgan. Materialov [Synthesis, Purification and Analysis of Inorganic Materials -- Collection of Works], Novosibirsk, Nauka Press, 1971, pp 16-26, (Translated from Referativnyy Zhurnal, Metallurgiya, No 5, 1972, Abstract No 5 G394 by G. Svodtseva).

Translation: Studies performed under laboratory conditions have shown the applicability of extraction processes in Co and Ni metallurgy. To produce the final conclusion and sufficiently reliable results which can be used as a basis for planning production, studies must be performed on large-scale installations. 4 Biblio. Refs.

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